

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-40. (Previously cancelled)

41. (Previously presented) A process for disrupting filter cake in an underground formation, which process comprises:
- (i) incorporating into a treatment fluid a solid polymer capable of being converted by hydrolysis into one or more organic acids;
 - (ii) introducing the treatment fluid into the underground formation; and
 - (iii) allowing the solid polymer to hydrolyse in the presence of water to produce organic acid such that acid soluble material within the filter cake or adjacent formation is dissolved.
42. (Previously presented) A process according to claim 41 wherein the solid polymer is a polyester.
43. (Previously presented) A process according to claim 41 wherein the solid polymer is an aliphatic polyester.
44. (Previously presented) A process according to claim 41 wherein the polymer is a polymer which comprises one or more of lactic acid, lactide, glycolic acid, glycolide, caprolactone and (optionally) other hydroxy, carboxylic acid or hydroxy-carboxylic acid compounds which may condense with lactic acid, lactide, glycolic acid, glycolide or caprolactone.

45. (Previously presented) A process according claim 41 wherein hydrolysis of the solid polymer produces lactic acid or glycolic acid.
46. (Previously presented) A process according claim 41 wherein the solid polymer is polylactic acid or polyglycolic acid.
47. (Previously presented) A process according to claim 41 wherein one or more other materials, chemicals, catalysts or enzymes are incorporated into the solid polymer by encapsulation to allow their controlled release coincident with or after acid production.
48. (Currently amended) A process according to claim ~~[[47]]~~41 wherein ~~the said one or more~~ other materials, chemicals, catalysts or enzymes are incorporated into the solid polymer by dissolution or dispersion to allow their controlled release coincident with acid production.
49. (Previously presented) A process according to claim 47 wherein the said one or more other materials, chemicals, catalysts or enzymes released from the solid polymer have functional activity for filter cake treatment or as production chemicals.
50. (Previously presented) A process according to claim 41 wherein the solid polymer is used in the form of a sphere, cylinder, cuboid, fibre, powder or bead, or other configuration.
51. (Previously presented) A process according to claim 41 which further comprises incorporating a buffer into the treatment fluid.
52. (Previously presented) A process according to claim 41 which further comprises

incorporating into the treatment fluid one or more polymer breakers.

53. (Previously presented) A process according to claim 52 wherein the polymer breaker is a hydrolase enzyme.
54. (Previously presented) A process according to claim 52 wherein the polymer breaker is a polysaccharide hydrolysing enzyme.
55. (Previously presented) A process according to claim 52 wherein the polymer breaker is an enzyme which can hydrolyse starch, xanthan, cellulose, guar, scleroglucan or succinoglycan or a derivative of any one of these polymers.
56. (Previously presented) A process according to claim 52 wherein the polymer breaker is an oxidant.
57. (Previously presented) A process according to claim 56 wherein the polymer breaker is an oxidant selected from persulphate, hypochlorite, peroxide, perborate, percarbonate, perphosphate, persilicate, a metal cation and a hydrogen peroxide adduct.
58. (Previously presented) A process according to claim 52 wherein the polymer breaker is in the form of a delayed release preparation.
59. (Previously presented) A process according to claim 41 wherein the treatment fluid is a gravel packing fluid which comprises one or more solid polymers and optionally one or more polymer breakers.

60. (Previously presented) A process according to claim 41 wherein the treatment fluid disrupts or degrades at least a portion of the filter cake and increases the permeability of the formation.
61. (Previously presented) A process according to claim 41 wherein at least a portion of the polymer remains in the underground formation and continuously releases organic acid and a production chemical during hydrocarbon production or water injection until the polymer has completely hydrolysed.
62. (Previously presented) A process according to claim 41 wherein the underground formation contains hydrocarbon or water and wherein the process further comprises recovering a hydrocarbon or water from the treated formation.
63. (Previously presented) A process according to claim 41 wherein the treatment fluid containing the solid polymer is introduced into the formation via a well bore which extends to the formation.
64. (Previously presented) A process according to claim 41 wherein the treatment fluid further comprises an acid sensitive viscosifying agent and wherein the viscosity of the fluid is reduced by the acid generated by hydrolysis of the solid polymer.
65. (Previously presented) A process according to claim 64 wherein the viscosifying agent is borate crosslinked guar gum.
66. (Previously presented) A process according to claim 41 wherein the treatment fluid further comprises calcium peroxide and wherein the organic acid produced by hydrolysis

of the solid polymer leads to the generation of hydrogen peroxide.

67. (Previously presented) A process according to claim 41 wherein the treatment fluid further comprises ammonium bifluoride and wherein the organic acid produced by hydrolysis of the solid polymer leads to the generation of hydrogen fluoride.

Claims 68-75. (Cancelled)

76. (New) A process according to claim 48 wherein the said one or more other materials, chemicals, catalysts or enzymes released from the solid polymer have functional activity for filter cake treatment or as production chemicals.